

1 **Current "Watersheds with Threatened and Impaired (T/I)" Rules**
2 **1/1/08**

3 (text added to existing FPRs in 2000, 2001, 2003, 2006, and 2007)
4 shown additions in text double underline; text deleted not shown)

5 **§ 895 Abbreviations applicable throughout chapter.**

6 (various nonsubstantive abbreviations)

7
8 **§ 895.1. Definitions.**

9 "Bankfull stage" means the stage that occurs when discharge fills
10 the entire channel cross section without significant inundation of the
11 adjacent floodplain, and has a recurrence interval of 1.5 to 2.0
12 years.

13 "Beneficial Functions of Riparian Zone" means the specific role
14 of the riparian zone to provide protection for water temperature
15 control, streambed and flow modification by large woody debris,
16 filtration of organic and inorganic material, upslope stability, bank
17 and channel stabilization and vegetative structure diversity for fish
18 and wildlife habitat.

19
20 "Channel zone" means that area that includes a watercourse's
21 channel at bankfull stage and a watercourse's floodplain, encompassing
22 the area between the watercourse transition lines.

23
24 "Inner Gorge" means a geomorphic feature formed by coalescing
25 scars originating from landsliding and erosional processes caused by

1 active stream erosion. The feature is identified as that area
2 beginning immediately adjacent to the stream channel below the first
3 break in slope.

4 "Saturated soil conditions" means that site conditions are
5 sufficiently wet that timber operations displace soils in yarding or
6 mechanical site preparation areas or displace road and landing surface
7 materials in amounts sufficient to cause a turbidity increase in
8 drainage facilities that discharge into Class I, II, III, or IV
9 waters, or in downstream Class I, II, III, or IV waters that is
10 visible or would violate applicable water quality requirements.

11 In yarding and site preparation areas, this condition may be
12 evidenced by: a) reduced traction by equipment as indicated by
13 spinning or churning of wheels or tracks in excess of normal
14 performance, b) inadequate traction without blading wet soil, c) soil
15 displacement in amounts that cause visible increase in turbidity of
16 the downstream waters in a receiving Class I, II, III, or IV waters,
17 or in amounts sufficient to cause a turbidity increase in drainage
18 facilities that discharge into Class I, II, III, or IV waters, or d)
19 creation of ruts greater than would be normal following a light
20 rainfall.

21 On logging roads and landing surfaces, this condition may be
22 evidenced by a) reduced traction by
23 equipment as indicated by spinning or churning of wheels or tracks in
24 excess of normal performance, b) inadequate traction without blading
25 wet soil, c) soil displacement in amounts that cause visible increase

1 in turbidity of the downstream waters in receiving Class I, II, III,
2 or IV waters, or in amounts sufficient to cause a turbidity increase
3 in drainage facilities that discharge into Class I, II, III, or IV
4 waters, d) pumping of road surface materials by traffic, or e)
5 creation of ruts greater than would be created by traffic following
6 normal road watering, which transports surface material to a drainage
7 facility that discharges directly into a watercourse. The

8 Soils or road and landing surfaces that are hard frozen are
9 excluded from this definition.

10 "Stable operating surface" means that throughout the period of
11 use, the operating surface of a logging road or landing does not
12 either (1) generate waterborne sediment in amounts sufficient to cause
13 a turbidity increase in downstream Class I, II, III, or IV waters, or
14 in amounts sufficient to cause a turbidity increase in drainage
15 facilities that discharge into Class I, II, III, or IV waters or, that
16 is visible or would violate applicable water quality requirements; or
17 (2) channel water for more than 50 feet that is discharged into Class
18 I, II, III, or IV waters.

19 "Watercourse or Lake Transition Line"

20 (a) for a watercourse with an unconfined channel (a channel
21 with a valley to width ratio at bankfull stage of 4 or greater) means
22 that line defined by the landward margin of the most active portion of
23 the channel zone area readily identified in the field by+ riverine
24 hardwood and conifer trees at least twenty-five (25) years in age at
25 breast height.

1 (b) for a watercourse with a confined channel means that line
2 that is the outer boundary of a watercourse's 20-year return interval
3 flood event floodplain. This outer boundary corresponds to an
4 elevation equivalent to twice the maximum depth of the adjacent riffle
5 at bankfull stage. The bankfull stage elevation shall be determined
6 by field indicators and may be verified by drainage area/bankfull
7 discharge relationships.

8 (c) for a lake, it is that line closest to the lake where
9 riparian vegetation is permanently established.

10
11 "Watersheds with threatened or impaired values" means any
12 planning watershed where populations of anadromous salmonids that are
13 listed as threatened, endangered, or candidate under the State or
14 Federal Endangered Species Acts with their implementing regulations,
15 are currently present or can be restored.

16
17 The amendments to 14 CCR § 895.1 adopted on March 15, 2000 and
18 April 4, 2000, which became effective July 1, 2000, shall expire on
19 December 31, 2008.

20 Note: Authority cited: Sections 4551, 4551.5, 4553, 4561, 4561.5,
21 4561.6, 4562, 4562.5, 4562.7 and 4591.1, Public Resources Code.
22 Reference: Sections 4512, 4513, 4526, 4551, 4551.5, 4561, 4561.6,
23 4562, 4562.5, 4562.7, 4583.2, 4591.1, 21001(f), 21080.5, 21083.2 and
24 21084.1, Public Resources Code; CEQA Guidelines Appendix K (printed
25 following Section 15387 of Title 14 Cal.Code of Regulations), and
Laupheimer v. State (1988) 200 Cal.App.3d 440; 246 Cal.Rptr. 82.

1 **§ 898 Feasibility Alternatives**

2 After considering the rules of the Board and any mitigation
3 measures proposed in the plan, the RPF shall indicate whether the
4 operation would have any significant adverse impact on the
5 environment. On TPZ lands, the harvesting per se of trees shall not
6 be presumed to have a significant adverse impact on the environment.
If the RPF indicates that significant adverse impacts will occur, the
RPF shall explain in the plan why any alternatives or additional
mitigation measures that would significantly reduce the impact are not
feasible.

Cumulative impacts shall be assessed based upon the methodology
described in Board Technical Rule Addendum Number 2, Forest Practice
Cumulative Impacts Assessment Process and shall be guided by standards
of practicality and reasonableness. The RPF's and plan submitter's
duties under this section shall be limited to closely related past,
present and reasonably foreseeable probable future projects within the
same ownership and to matters of public record. The Director shall
supplement the information provided by the RPF and the plan submitter
when necessary to insure that all relevant information is considered.

When assessing cumulative impacts of a proposed project on any
portion of a waterbody that is located within or downstream of the
proposed timber operation and that is listed as water quality limited
under Section 303(d) of the Federal Clean Water Act, the RPF shall
assess the degree to which the proposed operations would result in
impacts that may combine with existing listed stressors to impair a
waterbody's beneficial uses, thereby causing a significant adverse
effect on the environment. The plan preparer shall provide feasible
mitigation measures to reduce any such impacts from the plan to a
level of insignificance, and may provide measures, insofar as
feasible, to help attain water quality standards in the listed portion
of the waterbody.

The Director's evaluation of such impacts and mitigation measures
will be done in consultation with the appropriate RWQCB.

1 (a) The amendments to 14 CCR § 898 that became effective July 1,
2 2000, shall expire on December 31, 2008.

3
4 Note: Authority cited: Sections 4551 and 4553, Public Resources Code.
5 Reference: Sections 4512, 4513, 4551.5, and 4582.75, Public Resources
6 Code; and *Laupheimer v. State* (1988) 200 Cal.App.3d 440; 246 Cal.Rptr.
7 82.

8 **§ 898.2 Special Conditions Requiring Disapproval of Plans**

9 The Director shall disapprove a plan as not conforming to the
10 rules of the Board if any one of the following conditions exist:

11 (a) Boundaries of the area to be harvested are not clearly
12 delineated in the plan.

13 (b) Public acquisition of the parcel for purposes which would be
14 impaired by timber harvesting, is legislatively authorized, funded and
15 imminent.

16 (c) There is evidence that the information contained in the plan
17 is incorrect, incomplete or misleading in a material way, or is
18 insufficient to evaluate significant environmental effects. The
19 sufficiency of the information provided in a THP to evaluate
20 significant environmental effects shall be judged in light of what is
21 reasonable and
22 necessary.

23 (d) Implementation of the plan as proposed would result in either
24 a "taking" or finding of jeopardy of wildlife species listed as rare,
25 threatened or endangered by the Fish and Game Commission, the National
26 Marine Fisheries Service, or Fish and Wildlife Service, or would cause
27 significant, long-term damage to listed species. The Director is not
28 required to disapprove a plan which would result in a "taking" if the
29 "taking" is incidental and is authorized by a wildlife agency acting
30 within its authority under state or federal endangered species acts.

31 (e) Implementation of the plan would irreparably damage plant
32 species listed as rare or endangered by the Department of Fish and
33 Game and when the timber owner fails to comply with F&GC 1913.

34 (f) Implementation of the plan as proposed would result in the
35 taking of an individual Northern Spotted Owl prohibited by the Federal
36 Endangered Species Act.

37 (g) Implementation of the plan as proposed would not achieve
38 maximum sustained production of high quality timber products as
39 provided for by the rules of the Board, and by the intent of the Act.

40 (h) Implementation of the plan as proposed would cause a
41 violation of any requirement of an applicable water quality control
42 plan adopted or approved by the State Water Resources Control Board.

43
44 Note: Authority cited: Sections 4551, 4555 and 4582, Public Resources
45 Code. Reference: Sections 2053, 2080.1, 2090-2097, 2830 and 2835,
46 Fish and Game Code; Sections 4555, 4582.7 and 4582.75, Public

Resources Code; Section 51115.1, Government Code; the federal Endangered Species Act of 1973, 16 U.S.C. section 1531 et seq.; and *Laupheimer v. State* (1988) 200 Cal.App.3d 440; 246 Cal.Rptr. 82.

§ 914.8, 934.8, and 954.8 Tractor Road Watercourse Crossing

Watercourse crossing facilities on tractor roads shall be planned, constructed, maintained, and removed according to the following standards:

(a) The number of crossings shall be kept to a minimum. Existing crossing locations shall be used wherever feasible.

(b) A prepared watercourse crossing using a structure such as a bridge, culvert, or temporary log culvert shall be used to protect the watercourse from siltation where tractor roads cross a watercourse in which water may be present during the life of the crossing.

(c) Crossing facilities on watercourses that support fish shall allow for unrestricted passage of all life stages of fish that may be present, and for unrestricted passage of water. Such crossing facilities shall be fully described in sufficient clarity and detail to allow evaluation by the review team and the public, provide direction to the LTO for implementation, and provide enforceable standards for the inspector.

(d) Watercourse crossing facilities not constructed to permanent crossing standards on tractor roads shall be removed before the beginning of the winter period. If a watercourse crossing is to be removed, it shall be removed in accordance with 14 CCR 923.3(d) [943.3(d), 963.3(d)].

(e) If the watercourse crossing involves a culvert, the minimum diameter shall be stated in the THP and the culvert shall be of a sufficient length to extend beyond the fill material.

(f) Consistent with the protection of water quality, exceptions may be provided through the Fish and Game Code and shall be indicated in the plan.

(g) The amendments to 14 CCR §§ 914.8, 934.8, and 954.8 that became effective July 1, 2000, shall expire on December 31, 2008.

Note: Authority cited: Sections 4551, 4551.5, and 4553, Public Resources Code. Reference: Sections 4512, 4513, 4527, 4562.5, 4562.7, and 4582, Public Resources Code.

1 **§ 916, 936, and 956 Intent of Watercourse and Lake Protection.**

2 The purpose of this article is to ensure that the beneficial uses
3 of water, native aquatic and riparian species, and the beneficial
4 functions of riparian zones are protected from potentially significant
5 adverse site-specific and cumulative impacts associated with timber
6 operations.

7 It is the intent of the Board to restore, enhance, and maintain
8 the productivity of timberlands while providing equal consideration
9 for the beneficial uses of water. Further, it is the intent of the
10 Board to clarify and assign responsibility for recognition of
11 potential and existing impacts of timber operations on watercourses
12 and lakes, native aquatic and riparian-associated species, and the
13 beneficial functions of riparian zones and to ensure adoption of
14 feasible measures to effectively achieve compliance with this article.
15 Further, it is the intent of the Board that the evaluations that are
16 made, and the measures that are taken or prescribed, be documented in
17 a manner that clearly
18 and accurately represents those existing conditions and those
19 measures. "Evaluations made" pertain to the assessment of the
20 conditions of the physical form, water quality, and biological
21 characteristics of watercourses and lakes, including cumulative
22 impacts affecting the beneficial uses of water on both the area of
23 planned logging operations and in the Watershed Assessment Area (WAA).
24 "Measures taken" pertain to the procedures used or prescribed for the
25 restoration, enhancement, and maintenance of the beneficial uses of
water.

16 All provisions of this article shall be applied in a manner,
17 which complies with the following:

18 (a) During and following timber operations, the beneficial uses
19 of water, native aquatic and riparian-associated species, and the
20 beneficial functions of riparian zones shall be maintained where they
21 are in good condition, protected where they are threatened, and
22 insofar as feasible, restored where they are impaired.

23 (b) Protection of the quality and beneficial uses of water during
24 the planning, review, and conduct of timber operations shall comply
25 with all applicable legal requirements including those set forth in
any applicable water quality control plan adopted or approved by the

1 State Water Resources Control Board. At a minimum, the LTO shall not
2 do either of the following during timber operations:

3 (1) Place, discharge, or dispose of or deposit in such a manner
4 as to permit to pass into the waters of the state, any substances or
5 materials, including, but not limited to, soil, silt, bark, slash,
6 sawdust, or petroleum, in quantities deleterious to fish, wildlife,
7 beneficial functions of riparian zones, or the quality and beneficial
8 uses of water;

9 (2) Remove water, trees or large woody debris from a watercourse
10 or lake, the adjacent riparian area, or the adjacent flood plain in
11 quantities deleterious to fish, wildlife, beneficial functions of
12 riparian zones, or the quality and beneficial uses of water.

13 (c) Protecting and restoring native aquatic and riparian-
14 associated species, the beneficial functions of

15 riparian zones and the quality and beneficial uses of water shall
16 be given equal consideration as a management objective within any
17 prescribed WLPZ and within any ELZ or EEZ designated for watercourse
18 or lake protection.

19 (d) The measures set forth in this Section are meant to enforce
20 the public's historical and legal interest in protection for wildlife,
21 fish, and water quality and are to be used to guide timberland owners
22 in meeting their legal responsibilities to protect public trust
23 resources.

24 (e) The amendments to 14 CCR §§ 916 [936, 956] that became
25 effective July 1, 2000 shall expire on December 31, 2008.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 4512, 4513, 4551.5, 4552, 4562.5, 4562.7, 21001(b), (f), 21002 and 21002.1, Public Resources Code; and Sections 100, 1243, 1243.5, 13001, 13050(f), 13146 and 13147, Water Code.

§ 916.2, 936.2, and 956.2 Protection of the Beneficial Uses of Water and Riparian Functions.

(a) The measures used to protect each watercourse and lake in a logging area shall be determined by the presence and condition of the following values:

(1) The existing and restorable quality and beneficial uses of water as specified by the applicable water quality control plan and as further identified and refined during preparation and review of the plan.

(2) The restorable uses of water for fisheries as identified by the DFG or as further identified and refined during preparation and review of the plan.

(3) Riparian habitat that provides for the biological needs of native aquatic and riparian-associated species as specified in 14 CCR 916.4(b) [936.4(b), 956.4(b)].

(4) Sensitive conditions near watercourses and lakes as specified in 14 CCR 916.4(a) [936.4(a), 956.4(a)].

These values shall be protected from potentially significant adverse impacts from timber operations and restored to good condition, where needed, through a combination of the rules and plan-specific mitigation. The RPF shall propose and the Director may require, adequate protection of overflow and changeable channels which are not contained within the channel zone.

(b) The State's waters are grouped into four classes based on key beneficial uses. These classifications shall be used to determine the appropriate minimum protection measures to be applied during the conduct of timber operations. The basis for classification (characteristics and key beneficial uses) are set forth in 14 CCR 916.5 [936.5, 956.5], Table 1 and the range of minimum protective measures applicable to each class are contained in 14 CCR 916.3 [936.3, 956.3], 916.4 [936.4, 956.4], and 916.5 [936.5, 956.5].

(c) When the protective measures contained in 14 CCR 916.5 [936.5, 956.5] are not adequate to provide protection to beneficial uses, feasible protective measures shall be developed by the RPF or proposed by the Director under the provisions

of 14 CCR 916.6 [936.6, 956.6], Alternative Watercourse and Lake Protection, and incorporated in the plan when approved by the Director.

(d) The amendments to 14 CCR §§ 916.2 [936.2, 956.2] that became effective July 1, 2000 shall expire on December 31, 2008.

Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512, 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code; and Sections 1600 and 5650(c), Fish and Game Code.

§ 916.9, 936.9, and 956.9 Protection and Restoration in Watersheds with Threatened or Impaired Values.

In addition to all other district Forest Practice Rules, the following requirements shall apply in any planning watershed with threatened or impaired values:

(a) GOAL - Every timber operation shall be planned and conducted to prevent deleterious interference with the watershed conditions that primarily limit the values set forth in 14 CCR 916.2 [936.2, 956.2](a) (e.g., sediment load increase where sediment is a primary limiting factor; thermal load increase where water temperature is a primary limiting factor; loss of instream large woody debris or recruitment potential where lack of this value is a primary limiting factor; substantial increase in peak flows or large flood frequency where peak flows or large flood frequency are primary limiting factors). To achieve this goal, every timber operation shall be planned and conducted to meet the following objectives where they affect a primary limiting factor:

1 (1) Comply with the terms of a Total Maximum Daily Load (TMDL)
2 that has been adopted to address factors that may be affected by
3 timber operations if a TMDL has been adopted, or not result in any
4 measurable sediment load increase to a watercourse system or lake.

5 (2) Not result in any measurable decrease in the stability of a
6 watercourse channel or of a watercourse or lake bank.

7 (3) Not rResult in any measurable blockage of any aquatic
8 migratory routes for anadromous salmonids or listed species.

9 (4) Not result in any measurable stream flow reductions during
10 critical low water periods except as part of an approved water
11 drafting plan pursuant to 14 CCR 916.9(r) [936.9(r), 956.9(r)].

12 (5) Consistent with the requirements of 14 CCR § 916.9(i), 14 CCR
13 § 936.9(i), or 14 CCR § 956.9(i); protect, maintain, and restore trees
14 (especially conifers), snags, or downed large woody debris that
15 currently, or may in the foreseeable future, provide large woody
16 debris recruitment needed for instream habitat structure and fluvial
17 geomorphic functions.

18 (6) Consistent with the requirements of 14 CCR § 916.9(g), 14 CCR
19 § 936.9(g), or 14 CCR § 956.9(g); protect, maintain, and restore the
20 quality and quantity of vegetative canopy needed to: (A) provide shade
21 to the watercourse or lake, (B) minimize daily and seasonal
22 temperature fluctuations, (C) maintain daily and seasonal water
23 temperatures within the preferred range for anadromous salmonids or
24 listed species where they are present or could be restored, and (D)
25 provide hiding cover and a food base where needed.

1 (7) Result in no substantial increases in peak flows or large
2 flood frequency.

3 (b) Pre-plan adverse cumulative watershed effects on the
4 populations and habitat of anadromous salmonids shall be considered.
5 The plan shall specifically acknowledge or refute that such effects
6 exist. Where appropriate, the plan shall set forth measures to
7 effectively reduce such effects.

8 (c) Any timber operation or silvicultural prescription within 150
9 feet of any Class I watercourse or lake transition line or 100 feet of
10 any Class II watercourse or lake transition line shall have
11 protection, maintenance, or restoration of the beneficial uses of
12 water or the populations and habitat of anadromous salmonids or listed
13 aquatic or riparian-associated species as significant objectives.

14 Additionally, for evenaged regeneration methods and
15 rehabilitation with the same effects as a clearcut that are adjacent
16 to a WLPZ, a special operating zone shall retain understory and mid-
17 canopy conifers and hardwoods.

18 These trees shall be protected during falling, yarding and site
19 preparation to the extent feasible. If trees that are retained within
20 this zone are knocked down during operations, that portion of the
21 trees that is greater than 6" in
22 diameter shall remain within the zone as Large Woody Debris. The zone
23 shall be 25 feet above Class I WLPZs with slopes 0-30% and 50 feet
24 above Class I WLPZs with slopes > 30%.

25 (d)(1) The plan shall fully describe: (A) the type and location
of each measure needed to fully offset sediment loading, thermal

1 loading, and potential significant adverse watershed effects from the
2 proposed timber operations, and (B) the person(s) responsible for the
3 implementation of each measure, if other than the timber operator.

4 (2) In proposing, reviewing, and approving such measures,
5 preference shall be given to the following: (A)
6 measures that are both onsite (i.e., on or near the plan area) and in-
7 kind (i.e., erosion control measures where sediment is the problem),
8 and (B) sites that are located to maximize the benefits to the
9 impacted portion of a watercourse or lake. Out-of-kind measures
10 (i.e., improving shade where sediment is the problem) shall not be
11 approved as meeting the requirements of this subsection.

12 (e) Channel zone requirements

13 (1) There shall be no timber operations within the channel zone
14 with the following exceptions:

15 (A) timber harvesting that is directed to improve salmonid
16 habitat through the limited use of the selection or commercial
17 thinning silvicultural methods with review and comment by DFG.

18 (B) timber harvesting necessary for the construction or
19 reconstruction of approved watercourse crossings.

20 (C) timber harvesting necessary for the protection of public
21 health and safety.

22 (D) to allow for full suspension cable yarding when necessary to
23 transport logs through the channel zone.

24 (E) Class III watercourses where exclusion of timber operations
25 is not needed for protection of listed salmonids.

1 (2) In all instances where trees are proposed to be felled within
2 the channel zone, a base mark shall be placed below the cut line of
3 the harvest trees within the zone. Such marking shall be completed by
4 the RPF that prepared the plan prior to the preharvest inspection.

5 (f) The minimum WLPZ width for Class I waters shall be 150 feet
6 from the watercourse or lake transition line. Where a proposed THP is
7 located within the Sacramento or San Joaquin river drainages, and the
8 Director, DFG, and the National Marine Fisheries Service concur; the
9 RPF may explain and justify other WLPZ widths on areas where even aged
10 regeneration methods, seed tree removal, shelterwood removal,
11 alternative prescriptions, or rehabilitation will not be utilized
12 adjacent to watercourse and lake protection zones and where slopes are
13 less than 30%.

14 (g) Within a WLPZ for Class I waters, at least 85 percent
15 overstory canopy shall be retained within 75 feet of the watercourse
16 or lake transition line, and at least 65 percent overstory canopy
17 within the remainder of the WLPZ. The overstory canopy must be
18 composed of at least 25% overstory conifer canopy post-harvest. Where
19 a proposed THP is located within the Sacramento or San Joaquin river
20 drainages, and the Director, DFG, and the National Marine Fisheries
21 Service concur; the RPF may explain and justify other canopy retention
22 standards on areas where even aged regeneration methods, seed tree
23 removal, shelterwood removal, alternative prescriptions, or
24 rehabilitation will not be utilized adjacent to watercourse and lake
25 protection zones and where slopes are less than 30%.

1 Harvesting of hardwoods shall only occur for the purpose of enabling
2 conifer regeneration.

3 (h) For Class I waters, any plan involving timber operations
4 within the WLPZ shall contain the following information:

5 (1) A clear and enforceable specification of how any disturbance
6 or log or tree cutting and removal within the Class I WLPZ shall be
7 carried out to conform with 14 CCR 916.2 [936.2, 956.2](a) and 916.9
8 [936.9, 956.9](a).

9 (2) A description of all existing permanent crossings of Class I
10 waters by logging roads and clear specification regarding how these
11 crossings are to be modified, used, and treated to minimize risks,
12 giving special attention to allowing fish to pass both upstream and
13 downstream during all life stages.

14 (3) Clear and enforceable specifications for construction and
15 operation of any new crossing of Class I waters to prevent direct
16 harm, habitat degradation, water velocity increase, hindrance of fish
17 passage, or other potential impairment of beneficial uses of water.

18 (i) Recruitment of large woody debris for aquatic habitat in
19 Class I anadromous fish-bearing or restorable waters shall be ensured
20 by retaining the ten largest dbh conifers (live or dead) per 330 feet
21 of stream channel length that are the most conducive to recruitment to
22 provide for the beneficial functions of riparian zones. The retained
23 conifers shall be selected from within the ~~plan~~ THP area that lies
24 within 50 feet of the watercourse transition line. Where the THP
25 boundary is an ownership boundary, a class I watercourse, and the
WLPZ on both sides of the watercourse currently meets the stocking

standards listed under 14 CCR 912.7[932.7,952.7](b)(2)}; the five (5) largest dbh conifers (live or dead) per 330 feet of stream channel length that are the most conducive to recruitment to provide for the beneficial functions of riparian zones within the THP area shall be retained within 50 feet of the watercourse transition line.

The RPF may propose alternatives to substitute smaller diameter trees, trees that are more than 50 feet from the watercourse transition line, or other alternatives on a site specific basis. The RPF must explain and justify in the THP why the proposed alternative is more conducive to current and long-term Large Woody Debris recruitment, shading, bank stability, and the beneficial functions of riparian zones.

(j) Where an inner gorge extends beyond a Class I WLPZ and slopes are greater than 55%, a special management zone shall be established where the use of evenaged regeneration methods is prohibited. This zone shall extend upslope to the first major break-in-slope to less than 55% for a distance of 100 feet or more, or 300 feet as measured from the watercourse or lake transition line, which ever is less. All operations on slopes exceeding 65% within an inner gorge of a Class I or II watercourse shall be reviewed by a professional Geologist prior to plan approval, regardless of whether they are proposed within a WLPZ or outside of a WLPZ.

(k) From October 15 to May 1, the following shall apply: (1) no timber operations shall take place unless the approved plan incorporates a complete winter period operating plan pursuant to 14 CCR 914.7(a) [934.7(a), 954.7(a)], (2) unless the winter period

1 operating plan proposes operations during an extended period with low
2 antecedent soil wetness, no tractor roads shall be constructed,
3 reconstructed, or used on slopes that are over 40 percent and within
4 200 feet of a Class I, II, or III watercourse, as measured from the
5 watercourse or lake transition line, and (3) operation of trucks and
6 heavy equipment on roads and landings shall be limited to those with a
7 stable operating surface.

8 (l) Construction or reconstruction of logging roads, tractor
9 roads, or landings shall not take place during the winter period
10 unless the approved plan incorporates a complete winter period
11 operating plan pursuant to 14 CCR 914.7(a) [934.7(a), 954.7(a)] that
12 specifically address such road construction. Use of logging roads,
13 tractor roads, or landings shall not take place at any location where
14 saturated soil conditions exist, where a stable logging road or
15 landing operating surface does not exist, or when visibly turbid water
16 from the road, landing, or skid trail surface or inside ditch may
17 reach a watercourse or lake. Grading to obtain a drier running
18 surface more than one time before reincorporation of any resulting
19 berms back into the road surface is prohibited.

20 (m) All tractor roads shall have drainage and/or drainage
21 collection and storage facilities installed as soon as practical
22 following yarding and prior to either (1) the start of any rain which
23 causes overland flow across or along the disturbed surface within a
24 WLPZ or within any ELZ or EEZ designated for watercourse or lake
25 protection, or (2) any day with a National Weather Service forecast of

1 a chance of rain of 30 percent or more, a flash flood warning, or a
2 flash flood watch.

3 (n) Within the WLPZ, and within any ELZ or EEZ designated for
4 watercourse or lake protection, treatments to stabilize soils,
5 minimize soil erosion, and prevent the discharge of sediment into
6 waters in amounts deleterious to aquatic species or the quality and
7 beneficial uses of water, or that threaten to violate applicable water
8 quality requirements, shall be applied in accordance with the
9 following standards:

10 (1) The following requirements shall apply to all such
11 treatments.

12 (A) They shall be described in the plan.

13 (B) For areas disturbed from May 1 through October 15, treatment
14 shall be completed prior to the start of any rain that causes overland
15 flow across or along the disturbed surface.

16 (C) For areas disturbed from October 16 through April 30,
17 treatment shall be completed prior to any day for which a chance of
18 rain of 30 percent or greater is forecast by the National Weather
19 Service or within 10 days, whichever is earlier.

20 (2) The traveled surface of logging roads shall be treated to
21 prevent waterborne transport of sediment and concentration of runoff
22 that results from timber operations.

23 (3) The treatment for other disturbed areas, including: (A) areas
24 exceeding 100 contiguous square feet where timber operations have
25 exposed bare soil, (B) approaches to tractor road watercourse
crossings between the drainage facilities closest to the crossing, (C)

1 road cut banks and fills, and (D) any other area of disturbed soil
2 that threatens to discharge sediment into waters in amounts
3 deleterious to the quality and beneficial uses of water, may include,
4 but need not be limited to, mulching, rip-rapping, grass seeding, or
5 chemical soil stabilizers. Where straw, mulch, or slash is used, the
6 minimum coverage shall be 90%, and any treated area that has been
7 subject to reuse or has less than 90% surface cover shall be treated
8 again prior to the end of timber operations. The RPF may propose
9 alternative treatments that will achieve the same level of erosion
10 control and sediment discharge prevention.

11 (4) Where the undisturbed natural ground cover cannot effectively
12 protect beneficial uses of water from timber operations, the ground
13 shall be treated by measures including, but not limited to, seeding,
14 mulching, or replanting, in order to retain and improve its natural
15 ability to filter sediment, minimize soil erosion, and stabilize banks
16 of watercourses and lakes.

17 (o) As part of the plan, the RPF shall identify active erosion
18 sites in the logging area, assess them to determine which sites pose
19 significant risks to the beneficial uses of water, assess them to
20 determine whether feasible remedies exist, and address in the plan
21 feasible remediation for all sites that pose significant risk to the
22 beneficial uses of water.

23 (p) The erosion control maintenance period on permanent and
24 seasonal roads and associated landings that
25 are not abandoned in accordance with 14 CCR 923.8[943.8,963.8] shall
be three years.

1 (q) Site preparation activities shall be designed to prevent soil
2 disturbance within, and minimize soil movement into, the channels of
3 watercourses. Prior to any broadcast burning, burning prescriptions
4 shall be designed to prevent loss of large woody debris in
5 watercourses, and vegetation and duff within a WLPZ, or within any ELZ
6 or EEZ designated for watercourse or lake protection. No ignition is
7 to occur within any WLPZ, or within any ELZ or EEZ designated for
8 watercourse or lake protection. When burning prescriptions are
9 proposed, the measures or burning restrictions which are intended to
10 accomplish this goal shall be stated in the plan and included in any
11 required burning permit. This information shall be provided in
12 addition to the information required under 14 CCR 915.4 [935.4,
13 955.4].

14 (r) Water drafting for timber operations from within a channel
15 zone of a natural watercourse or from a lake shall conform with the
16 following standards:

17 (1) The RPF shall incorporate into the THP:
18 (A) a description and map of proposed water drafting locations,
19 (B) the watercourse or lake classification, and
20 (C) the general drafting location use parameters (i.e., yearly
21 timing, estimated total volume needed, estimated total uptake rate and
22 filling time, and associated water drafting activities from other
23 THPs).

24 (2) On Class I and Class II streams where the RPF has estimated
25 that:

(A) bypass flows are less than 2 cubic feet per second, or

1 (B) pool volume at the water drafting site would be reduced by
2 10%, or

3 (C) diversion rate exceeds 350 gallons per minute, or

4 (D) diversion rate exceeds 10% of the above surface flow; no
5 water drafting shall occur unless the RPF prepares a water drafting
6 plan to be reviewed by DFG and approved by the Director.

7 The water drafting plan shall include, but not be limited to:

8 1. disclosure of estimated percent streamflow reduction and
9 duration of reduction,

10 2. discussion of the effects of single pumping operations, or
11 multiple pumping operations at the same location,

12 3. proposed alternatives and discussion to prevent adverse
13 effects (e.g. reduction in hose diameter, reduction in total intake at
14 one location, described allowances for recharge time, and alternative
15 water drafting locations),

16 4. conditions for operators to include an operations log kept on
17 the water truck containing the following information: Date, Time, Pump
18 Rate, Filling Time, Screen Cleaned, Screen Conditions, and Bypass flow
19 observations,

20 5. a statement by the RPF for a pre-operations field review with
21 the operator to discuss the conditions in the water drafting plan.

22 (3) Intakes shall be screened in Class I and Class II waters.
23 Screens shall be designed to prevent the entrainment or impingement of
24 all life stages of fish or amphibians. Screen specifications shall be
25 included in the plan.

1 (4) Approaches to drafting locations within a WLPZ shall be
2 surfaced with rock or other suitable material to avoid generation of
3 sediment.

4 (s) No timber operations are allowed in a WLPZ, or within any ELZ
5 or EEZ designated for watercourse or lake protection, exemption
6 notices except for:

- 7
- 8 1. hauling on existing roads,
- 9 2. road maintenance,
- 10 3. operations conducted for public safety,
- 11 4. construction or reconstruction of approved watercourse
12 crossings,
- 13 5. temporary crossings of dry Class III watercourses which do not
14 require a "Streambed Alteration Agreement" under the Fish and Game
15 Code or
- 16 6. harvesting recommended in writing by D. F. G to address
17 specifically identified forest conditions.

18 (t) No timber operations are allowed in a WLPZ, or within any
19 ELZ or EEZ designated for watercourse or lake protection, under
20 emergency notices except for:

- 21 (1) hauling on existing roads,
- 22 (2) road maintenance,
- 23 (3) operations conducted for public safety,
- 24 (4) construction or reconstruction of approved watercourse
25 crossings,

1 (5) temporary crossings of dry Class III watercourses which
2 do not require a "Streambed Alteration Agreement" under the Fish and
3 Game Code,

4 (6) harvesting recommended in writing by DFG to address
5 specifically identified forest conditions,

6 (7) the harvest of dead or dying conifer trees subject to
7 the following conditions:

8 (A) Recruitment of large woody debris for aquatic
9 habitat in Class I anadromous fish-bearing or restorable waters shall
10 be ensured by retaining the ten largest dbh conifers (live or dead)
11 per 330 feet of stream channel length that are the most conducive to
12 recruitment to provide for the beneficial functions of riparian zones.
13 The retained conifers shall be selected from within the area of
14 operations that lies within 50 feet of the watercourse transition
15 line. Where the area of operations is bounded by an ownership
16 boundary that corresponds with a class I watercourse, and where the
17 WLPZ on both sides of the watercourse currently meets the stocking
18 standards listed under 14 CCR § 912.7[932.7,952.7](b)(2), the five
19 (5)largest dbh conifers (live or dead) per 330 feet of stream channel
20 length that are the most conducive to recruitment to provide for the
21 beneficial functions of riparian zones shall be retained within 50
22 feet of the watercourse transition line within the area of operations.

23 The RPF may provide alternatives to substitute smaller diameter
24 trees, trees that are more than 50 feet from the watercourse
25 transition line, or other alternatives on a site specific basis. The
RPF must provide with the notice an explanation and justification why

1 the alternative provided is more conducive to current and long-term
2 Large Woody Debris recruitment, shading, bank stability, and the
3 beneficial functions of riparian zones.

4 (B) Within any WLPZ, ELZ, or EEZ designated for Class
5 II or III watercourse protection, a minimum of two dead, dying, or
6 diseased conifer trees per acre at least 16 inches diameter breast
7 high and 50 feet tall shall be retained within 50 feet of the
8 watercourse transition line.

9 (C) Trees to be harvested or retained shall be marked
10 by, or under the supervision of, an RPF prior to timber operations
11 within the WLPZ or ELZ/EEZ.

12 (D) Within the WLPZ or ELZ/EEZ, if the stocking
13 standards of 14 CCR § 912[932, 952].7 are not met upon completion of
14 timber operations, unless the area meets the definition of
15 substantially damaged timberlands, at least ten trees shall be planted
16 for each tree harvested but need not exceed an average point count of
17 300 trees per acre.

18 (u) No salvage logging is allowed in a WLPZ without an
19 approved HCP, a PTEIR, an SYP, or an approved plan that contains a
20 section that sets forth objectives, goals, and measurable results for
21 streamside salvage operations.

22 (1) This section does not apply to emergency
23 operations under 14 CCR § 1052.

24 (v) Nonstandard practices (i.e., waivers, exceptions, in-lieu
25 practices, and alternative practices) shall comply with the goal set
forth in subsection (a) above as well as with the other requirements

1 set forth in the rules.

2 (w) The Director may approve alternatives provided the
3 alternative practice will achieve the goal of this section. The
4 Director shall not accept for inclusion in a plan any alternative
5 practice as described in this section where two or more agencies
6 listed in 4582.6 of the PRC and 14 CCR § 1037.3 have submitted written
7 comments which lead to the Director's conclusion that the proposed
8 alternative will not meet the goal of this section and the agency(ies)
9 participated in the review of the plan, including an on-the-ground
10 inspection.

11 (x) Other measures that would effectively achieve the goal set
12 forth in 14 CCR § 916.9(a)[936.9(a),956.9(a)] may be approved in
13 accordance with 14 CCR 916.6[936.6,956.6].

14 (y) The provisions of 14 CCR § 916.9[936.9,956.9] shall not apply
15 to a plan that is subject to an incidental take permit based upon an
16 approved Habitat Conservation Plan that addresses anadromous salmonid
17 protection.

18 (z) This section shall expire on December 31, 2008.

19 Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512,
20 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code;
21 and Sections 1600 and 5650(c), Fish and Game Code.

1 **§ 916.11, 936.11, and 956.11 Effectiveness and Implementation Monitoring**

2 (a) Where timber operations will be conducted within a WLPZ,
3 the Director may require a post-harvest evaluation of the
4 effectiveness of the mitigations and practices designed to protect the
5 watercourse(s) or lake(s) as a condition of plan approval. The
6 Director shall require such an evaluation if the necessity for the
7 evaluation is supported by substantial evidence in the record. This
8 evidence may include, but is not limited to, potential land failures,
9 accelerated rate of road construction or harvesting within a
10 watershed, concentration or intensity of harvesting activity near
11 watercourses, and potential for accelerated windthrow. The design and
12 implementation of the evaluation shall be done in consultation with
13 the Director, the RWQCB or DFG, and THP submitter, and the sufficiency
14 of the information requested by the Director shall be judged in light
15 of reasonableness and practicality. The evaluation may utilize
16 procedures including, but not limited, to:

17 (1) Procedures for effectiveness and implementation monitoring,

18 (2) Existing landowner monitoring programs, or

19 (3) Photographic monitoring

20 (b) This section shall expire on December 31, 2008.

21 Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512,
22 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code;
23 and Sections 1600 and 5650(c), Fish and Game Code.
24
25

1 **§ 916.12, 936.12, and 956.12 Section 303(d) Listed Watersheds**

2 For any planning watershed in which timber operations could
3 contribute to the pollutants or stressors which have been identified
4 as limiting water quality in a water body listed pursuant to 303(d)
5 Federal Clean Water Act, the following shall apply:

6 (a) The Department shall, in collaboration with the appropriate
7 RWQCB and SWRCB, prioritize watersheds in which the following will be
8 done: 1) conduct or participate in any further assessment or analysis
9 of the watershed that may be needed, 2) participate in the development
10 of Total Maximum Daily Load (TMDL) problem assessment, source
11 assessment, or load allocations related to timber operations, and 3)
12 if existing rules are deemed not to be sufficient, develop
13 recommendations for watershed-specific silvicultural implementation,
14 enforcement and monitoring practices to be applied by the Department.

15 (b) The Department shall prepare a report setting forth the
16 Department's findings and recommendations from the activities
17 identified pursuant to (a) above. The report shall be submitted to
18 the Board and the appropriate RWQCB. The report shall be made
19 available to the public upon request and placed on the Boards' website
20 for a 90-day period.

21 (c) Where the Department has recommended that the adoption of
22 watershed specific rules is needed, the Board shall consider that
23 recommendation as a proposal for rulemaking under the Administrative
24 Procedures Act (Section 11340 et. seq. Gov Code) and shall begin that
25 process within 180 days following receipt of that report.

1 (d) These watershed specific rules shall be developed in
2 collaboration with the appropriate RWQCB, the landowner(s) or designee
3 with land in the planning watershed, and other persons or groups
4 within the watershed, and may also be incorporated into a TMDL
5 implementation plan.

6 (e) The watershed specific rules shall remain in effect until the
7 water body has been removed from the 303(d) list, or that the Board
8 finds, after consulting with the appropriate RWQCB, that timber
9 operations are no longer a significant source of the pollutant or
10 stressor that limits water quality in the listed water body.

11 (f) This section shall expire on December 31, 2008.

12
13 Note: Authority cited: Sections 4551, 4562.7 and 21000(g), Public Resources Code. Reference: Sections 751, 4512,
14 4513, 4551.5, 21000(g), 21001(b) and 21002.1, Public Resources Code; Sections 100, 1243, 13050(f) Water Code;
and Sections 1600 and 5650(c), Fish and Game Code.

1 **§ 923.3, 943.3, and 963.3 Watercourse Crossings**

2 Watercourse crossing drainage structures on logging roads shall
3 be planned, constructed, reconstructed, and maintained or removed,
4 according to the following standards. Exceptions may be provided
5 through application of Fish and Game Code Sections 1601 and 1603 and
6 shall be included in the THP.

7 (a) The location of all new permanent watercourse crossing
8 drainage structures and temporary crossings located within the WLPZ
9 shall be shown on the THP map. If the structure is a culvert intended
10 for permanent use, the minimum diameter of the culvert shall be
11 specified in the plan. Extra culverts beyond those shown in the THP
12 map may be installed as necessary.

13 (b) The number of crossings shall be kept to a feasible minimum.

14 (c) Drainage structures on watercourses that support fish shall
15 allow for unrestricted passage of all life stages of fish that may be
16 present, and shall be fully described in the plan in sufficient
17 clarity and detail to allow evaluation by the review team and the
18 public, provide direction to the LTO for implementation, and provide
19 enforceable standards for the inspector.

20 (d) When watercourse crossings, other drainage structures, and
21 associated fills are removed the following
22 standards shall apply:

23 (1) Fills shall be excavated to form a channel that is as that
24 close as feasible to the natural watercourse grade and orientation,
25 and that is wider than the natural channel.

1 (2) The excavated material and any resulting cut bank shall be
2 sloped back from the channel and stabilized to prevent slumping and to
3 minimize soil erosion. Where needed, this material shall be
4 stabilized by seeding, mulching, rock armoring, or other suitable
5 treatment.

6 (e) All permanent watercourse crossings that are constructed or
7 reconstructed shall accommodate the estimated 100-year flood flow,
8 including debris and sediment loads.

9 (f) Permanent watercourse crossings and associated fills and
10 approaches shall be constructed or maintained to prevent diversion of
11 stream overflow down the road and to minimize fill erosion should the
12 drainage structure become obstructed. The RPF may propose an
13 exception where explained in the THP and shown on the THP map and
14 justified how the protection provided by the proposed practice is at
15 least equal to the protection provided by the standard rule.

16 (g) Any new permanent culverts installed within class I
17 watercourses shall allow upstream and downstream passage of fish or
18 listed aquatic species during any life stage and for the natural
19 movement of bedload to form a continuous bed through the culvert and
20 shall require an analysis and specifications demonstrating conformance
21 with the intent of this section and subsection.

22 (h) The amendments to 14 CCR §§ 923.3 [943.3, 963.3] that became
23 effective July 1, 2000, shall expire on December 31, 2008.

24 Note: Authority cited: Sections 4551, 4551.5, and 21004, Public Resources Code. Reference: Sections 4512, 4513,
25 4551, 4551.5, 4562.5 and 4562.7, Public Resources Code; 40 CFR 130.2(q); and California Case Law: *Natural Resources Defense Council, Inc. v. Arcata Natl. Corp.* (1972) 59 Cal. App. 3d 959, 131 Cal Rptr. 172.

1 § 923.9 [943.9, 963.9] Roads and Landings in Watersheds with
2 Threatened or Impaired Values.

3
4 In addition to all other district Forest Practice Rules, the
5 following requirements shall apply in any planning watershed with
6 threatened or impaired values:

7 (a) Where logging road or landing construction or
8 reconstruction is proposed, the plan shall state the locations of and
9 specifications for road or landing abandonment or other mitigation
10 measures to minimize the adverse
11 effects of long-term site occupancy of the transportation system
12 within the watershed.

13 (b) Unless prohibited by existing contracts with the U.S.D.A.
14 Forest Service or other federal agency, new and reconstructed logging
15 roads shall be no wider than a single-lane compatible with the largest
16 type of equipment specified for use on the road, with adequate
17 turnouts provided as required for safety. The maximum width of these
18 roads shall be specified in the plan. These roads shall be outsloped
19 where feasible and drained with water breaks or rolling dips (where
20 the road grade is inclined at 7 percent or less), in conformance with
21 other applicable Forest Practice Rules.

22 (c) The following shall apply on slopes greater than 50%:

23 (1) Specific provisions of construction shall be identified and
24 described for all new roads.

25 (2) Where cutbank stability is not an issue, roads may be
constructed as a full-benched cut (no fill). Spoils not utilized in

1 road construction shall be disposed of in stable areas with less than
2 30 percent slope and outside of any WLPZ, EEZ, or ELZ.

3 (3) Alternatively, roads may be constructed with balanced cuts
4 and fills if properly engineered, or fills may be
5 removed with the slopes recontoured prior to the winter period.

6 (d) In addition to the provisions listed under 14 CCR 923.1(e)
7 [943.1(e), 963.1(e)], all permanent or seasonal logging roads with a
8 grade of 15% or greater that extends 500 continuous feet or more shall
9 have specific erosion control measures stated in the plan.

10 (e) Where situations exist that elevate risks to the values set
11 forth in 14 CCR 916.2(a), [936.2(a), 956.2(a)] (e.g., road networks
12 are remote, the landscape is unstable, water conveyance features
13 historically have a high failure rate, culvert fills are large)
14 drainage structures and erosion control features shall be oversized,
15 low maintenance, or reinforced, or they shall be removed before the
16 completion of the timber operation. The method of analysis and the
17 design for crossing protection shall be included in the plan.

18 (f) The provisions of 14 CCR 923.9 [943.9, 963.9] shall not apply
19 to a plan that is subject to an incidental take permit based upon an
20 approved Habitat Conservation Plan that addresses anadromous salmonid
21 protection.

22 (g) This section shall expire on December 31, 2008.

23 Note: Authority cited: Sections 4551, 4551.5, 4553, 4562.7 and 21000(g), Public Resources Code. Reference:
24 Sections 751, 4512, 4513, 4551, 4551.5, 4562.5, 4562.7, 21000(g), 21001(b) and 21002.1, Public Resources Code;
25 Sections 100, 1243, 13050(f) Water Code; Sections 1600 and 5650(c), Fish and Game Code; and *Natural Resources*
Defense Council, Inc. v. Arcata Natl. Corp. (1976) 59 Cal.App. 3d 959, 131 Cal.Rptr. 172.

CZ 1/28/08